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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,539	12/12/2003	Liu Kuang Hong	14102 B	9709

36672 7590 02/27/2006

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EXAMINER
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AN, SANG WOOK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/734,539

Applicant(s)

HONG ET AL.

Examiner

Sang W. An

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant claims inputting foaming material then in parenthesis includes rubber. Examiner cannot clearly determine whether the applicant is claiming foaming material or rubber.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pontiff (US 5348458) in view of Chang et al (US 5785909).

Regarding claim 1, Pontiff teaches inputting foaming material in mold (col 11 lines 54-68), foaming the rubber in the mold for about 3 minutes (col 11 line 68; although Pontiff's hold time is not within the range given in the claim, examiner notes that the hold time could increase depending on the foaming material used; col 8 line 64-67) at 174°C (col 11 line 49). Pontiff teaches that temperature and pressure conditions will vary widely depending upon the type of material being foamed and the type of article being produced (col 5 lines 59-63). Therefore the temperature and pressure condition could vary from one foam material to another. Pontiff teaches opening the mold, removing the sole so as to cool the foamed sole, and completing a semi-finished product of sole (col 9 lines 5-6).

However Pontiff does not teach pre-calculating a volume percentage of foaming material in cavity of the mold based on specific gravity. Nevertheless, Chang et al do teach calculating the amount of foam material to be poured based on the specific gravity in order to obtain the desired fill characteristics (col 6 lines 26-34). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use Chang's teaching in Pontiff's method for in-mold foaming method for making soles in order to obtain desired fill characteristics (col 6 line 34).

Regarding claim 3, Pontiff teaches that a high sidewall can be synchronously formed on periphery of the sole during the in-mold foaming step (fig 8).

Regarding claim 4, Pontiff teaches that a periphery structural pattern can be synchronously formed on periphery of the sole during the in-mold foaming step (fig 8).

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4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pontiff (US 5348458) in view of Chang et al (US 5785909) further in view of Yang (US 5503786). Pontiff in view of Chang et al teaches all the elements of claim 1 and some of elements of claim 2. Pontiff teaches inputting foaming material in mold, forming the rubber material in vacuum platform for 3 minutes (col 11 line) at 174°C (col 11 line 49) under pressure that semi-finished product of sole is formed directly in the cavity of the mold (col 11 lines 54-68). Pontiff teaches that temperature and pressure conditions will vary widely depending upon the type of material being foamed and the type of article being produced (col 5 lines 59-63). Therefore the temperature and pressure condition could vary from one foam material to another. Pontiff also teaches cooling the sole; getting semi-finished products; completing the semi-finished product of sole (col 9 lines 5-6). Furthermore, Pontiff teaches cleaning off scraps of the raw material after compression but recommends that the mold should be shaped in such a way as to minimize the scraps (col 9 lines 14-22). However, Pontiff in view of Chang et al do not teach compressing portions "a" and "b" with middle plate: middle plate of the mold initially used to compress the special portions where is preinstalled with raw material into the cavity of the mold. Nevertheless, Yang does teach compressing special portions "a" and "b" (fig 1 20). Therefore it would have been obvious to use Yang's teaching in Pontiff's method for in-mold foaming method for making soles in order to form shock absorption configuration (col 1 lines 11-13).

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang W. An whose telephone number is (571) 272-1997. The examiner can normally be reached on Mon-Fri 7 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sang Wook An  
Patent Examiner  
Art Unit 1732  
February 9, 2006

  
**MICHAEL P. COLAIANNI**  
**SUPERVISORY PATENT EXAMINER**